

**DESIGN OF FIRE SPRINKLER SYSTEM
FOR THE TECHNICAL EDUCATION SHOPS AT
OLIVER WOLCOTT REGIONAL VOCATIONAL TECHNICAL
HIGH SCHOOL
TORRINGTON, CONNECTICUT
PROJECT: BI- RT- 853**

BID OPENING

1:00 P.M.

January 10, 2012

ADDENDUM NUMBER 1

November 14, 2011

The following clarifications are applicable to drawings and specifications for the project referenced above.

Item 1

ADD the following **SUBSECTION 3.6 TO ARTICLE 3, CORRELATION OF CONTRACT DOCUMENTS:**

3.6 In accordance with Public Act No. 11-51 (Effective July 1, 2011), wherever the term "Commissioner of Public Works" is used in the "Bidding Documents" or "Project Manual" the term "Commissioner of Construction Services" shall be substituted in lieu thereof; and wherever the term "Department of Public Works" is used in "Bidding Documents" or "Project Manual", the term "Department of Construction Services" shall be substituted in lieu thereof.

Item 2

Drawing FP-1, FIRST FLOOR AREA A FIRE PROTECTION PLAN AND SITE PLAN, dated June 23, 2010, **ADD** Detail 5 - Typical Thrust Block Detail see attached sketch SKFP-1.

Item 3

Drawing FP-3, FIRST FLOOR AREA C PARTIAL FIRE PROTECTION PLAN, dated June 23, 2010, **ADD NOTE** Furnish upright sprinklers above existing 2x2 and 2x4 ceilings in the computer room and surrounding areas where there is combustible material above the ceiling. Total square feet of space where upright sprinklers shall be provided is 3,000 square feet.

Item 4

Drawing FP-4, FIRST FLOOR AREA G AND PARTIAL BASEMENT AREA B FIRE PROTECTION PLANS, dated June 23, 2010, **REVISE** the drawing as indicated on the attached sketch SKFP-2.

Item 5

Exhibit A herein attached to this Addendum #1 are record site utility drawing excerpts from the construction plans prepared by Blanchard and Tillinghast, Architects, New Haven, CT, revision dated 8-1-1979.

Exhibits B to D herein attached to this Addendum #1 are record site utility drawing excerpts from the construction plans prepared by Ames and Whitaker Architects, Waterbury, CT, revision dated 12-30-1997

Exhibits A to D are herein provided for information purposes only. The Owner does not take responsibility that the information shown is accurate and true. Contractor shall field verify all existing conditions where new buried fire piping is to be installed. Contractor will furnish utility locating services including, but not limited to, local utility layout support, ground penetrating radar, and test pits to determine existing field conditions. Horizontal and vertical as-built control data, including separation distance from existing utilities, shall be indicated on the Project Record Documents maintained by the Contractor for all new underground piping.

Item 6

Section 01 12 16, Work Sequence - Phase (s), **ADD** Paragraph D to read as follows:

- D. Whenever classes are in session, work hours shall be performed on a second shift from 2:30 pm to 10:30 pm. Alternate work hours during school closings will be subject to the Owner's prior written permission.

Item 7

Section 01 12 19, Contract Interface, **REVISE** the first part of Paragraph B.1 to read as follows:

- B. **Owner:** The Owner is the Department of Construction Services, State of Connecticut.
 - 1. The authorized representative for the Owner is **Natalina Raimondi**, Project Manager. The Project Manager is located at Room **460**, 165 Capitol Avenue, Hartford, CT, 06106. Phone: **860-713-5827**; Fax: **860-713-7261**; E-mail: natalina.raimondi@ct.gov.

Section 01 12 19, Contract Interface, **REVISE** the first part of Paragraph E to read as follows:

- E. **Construction Administrator:** The Construction Administrator is "To Be Determined".

Item 8

Section 01 32 33, Photographic Documentation, **ADD** Part F to read as follows:

- F. The Contractor shall document all existing site and building conditions prior to the start of any work activity. Documentation shall include, but not limited to, any existing ceilings or ceiling tiles that are damaged. If damaged ceilings are not documented prior to start of work, the Contractor shall be held responsible for the damaged ceilings and shall make repairs as deemed necessary by the Owner.

Item 9

Section 01 35 16, Alteration Project Procedures, **DELETE** Part B Salvageable Materials in its entirety.

Item 10

Section 01 35 16, Alteration Project Procedures, **DELETE** Part F.2.2.2 Project Procedures for Work Involving Lead Containing Material (LBP) in its entirety.

Item 11

Section 01 52 13, Field Offices and Sheds, **DELETE** Part C.1 in its entirety and **REPLACE** with the following:

1. **State User Agency Provided Field Offices:** The State User Agency will furnish, without charge, *one (1)* room for the General Contractor's use as an office in an existing building. Room shall be the existing fire pump room located at the lower level of Building B. The Department of Construction Services Project Manager and Construction Administrator will share space with the General Contractor. The General Contractor shall provide and install a 5-lb ABC fire extinguisher, an approved first aid kit, waste receptacle, work table and chairs. The General Contractor shall be responsible for furniture and shall keep this area clean and return it to its original condition after use. The furniture may be used, but shall be in good condition as judged by the Owner and Construction Administrator.

Item 12

Section 21 05 00, Common Work Results for Fire Suppression, **DELETE** Item 1 under Part 3.4A. in its entirety.

Item 13

Section 21 05 00, Common Work Results for Fire Suppression, **REVISE** Item 2 under Part 3.4A to read as follows:

2. Provide Link Seal Modular Seal assembly Model C for temperature rating of -40°F to 250°F at all new pipe penetrations of existing foundations and floors. Install Link Seal per manufacturers written instructions.

Item 14

Section 21 13 13, Wet-Pipe Sprinkler System, **REVISE** Part 3.1C to read as follows:

- C. Impairments to the existing water supplies shall be minimized. All work shall be complete before making the final connections to the existing water supplies. The Contractor shall notify the owner's representative three days in advance before impairing any fire protection equipment.

Item 15

Section 21 13 13, Wet-Pipe Sprinkler System, **ADD** Part 3.1-S to read as follows:

- S. The minimum pipe size for new alarm valve risers shall be 4-inches. Minimum pipe size for all new underground fire mains shall be 6-inches. Provide 6-inch tap with isolation valve and blind flange at new fire main to Building G, see detail on Drawing FP-5.

Item 16

Section 23 04 00, General Conditions for Mechanical Trades, **REVISE** Paragraph 1.26-A to read as follows:

- A. The Contractor shall guarantee all material and workmanship under these Specifications and the Contract for a **minimum** period of eighteen months from the date of Acceptance of the Work by the Owner. During this guarantee period, all defects developing through faulty equipment, materials or workmanship shall be corrected or replaced immediately by this Contractor without expense to the Owner.

Item 17

In Section 23 04 00, General Conditions for Mechanical Trades, **REVISE** Paragraph 1.20A to read as follows:

- A. Upon completion of all work and tests, the Contractor shall furnish the necessary skilled labor for operating his system. During this period, he shall fully instruct the Owner or the Owner's representative in the operation, adjustment and maintenance of all equipment furnished. The Contractor shall give at least seven (7) days notice to the Owner and the Engineer in advance of this period.

Item 18

Section 23 04 00, General Conditions for Mechanical Trades, **REVISE** Part 1.20D to read as follows:

- D. An authorized representative shall attest in writing that the equipment has been properly installed prior to startup of any major equipment. The following equipment will require this inspection: pumps; alarms, indicating valves etc. These letters shall be bound into the operating and maintenance books.

Item 19

Section 23 04 00, General Conditions for Mechanical Trades, **DELETE** Part 1.9 in its entirety. Refer to Section 01 25 00 Substitution Procedures.

Item 20

In Section 31 23 33, Trenching and Backfilling, **REVISE** Part 3.1R to read as follows:

- R. Existing Sidewalks: All bituminous and concrete sidewalks damaged or removed by the Contractor's operations shall be replaced to match existing and constructed equal to those removed, at no additional cost to the Owner. All materials and methods of construction shall conform to the appropriate sections of the Conn DOT Form 816. This includes the removal of the damaged walks, subgrade preparation, and casting in place of the new sidewalk to the established lines and grades.

Item 21

Section 31 23 33, Trenching and Backfilling, **REVISE** Paragraph 3.1-O to read as follows:

- O. Existing Curbing: All granite, concrete and bituminous curbing damaged or removed by the Contractor's operations shall be replaced to match existing and constructed equal to those removed, at no additional cost to the Owner. Said curbing shall be set plumb and true to the established lines and grades, and backed up with materials equal to those removed. All materials and methods of construction shall conform to the appropriate sections of the Conn DOT Form 816.

Item 22

In Section 31 23 33, Trenching and Backfilling, **ADD** Part 3.1S to read as follows:

- S. Existing Concrete Aprons: All concrete aprons damaged or removed by the Contractor's operations shall be replaced to match existing and constructed equal to those removed, at no additional cost to the Owner. At location where new buried fire line enters Building G and crosses under the existing concrete apron, Contractor shall field verify depth of apron and provide additional supports for existing apron where fire line crosses under it.

Item 23

In Section 31 23 33, Trenching and Backfilling, **ADD** Part 3.1T to read as follows:

- T. Open Trench: At all locations where trenches are left open during installation of new buried fire line, Contractor shall provide temporary traffic load steel plates over trench until pipe has been tested, inspected and trench has been filled.

Item 24

In Section 01 20 00, Price and Payment Procedure, **ADD** Section 01 22 13 Unit Prices Schedule Earth and Rock Excavation to read as follows:

- A. Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. This Section includes administrative and procedural requirements for the following unit prices and provisions are to be included in and become part of this Contract to be used in evaluating additions to or deductions from the work called for in the specifications and/or plans.
 - 1. Unless otherwise specified elsewhere in these documents, Contractors are to assume that all excavation is earth; however, if unspecified rock is encountered, it will be paid for at the given unit prices listed in paragraph "E". Rock prices are net in that allowances for reduced quantities of earth are also included in the unit prices. The prices given include all costs for overhead, profit and rock surveys.
 - 2. Wherever rock to be excavated is encountered, the Contractor shall strip or expose the rock to such an extent that in the Owner's opinion the necessary measurements can be taken. The Contractor shall provide the Owner with a survey by a licensed land surveyor indicating top of rock elevations at points of intersection on a rectilinear grid with lines spaced sufficiently close to show accurately the rock surface contours. At the Owner's option, an additional survey may be furnished by the Owner from a licensed surveyor.
 - 3. If the conditions of the excavation work indicated are clearly of a special nature, the Contractor may ask the Owner for reconsideration of the established unit prices and if granted, the unit prices will not apply, and prices will be negotiated in accordance with Division 00 General Conditions, Article 13 "Compensations for Changes in the Work".
- C. Definitions - Earth and Rock Excavation:
 - 1. "Earth" - is defined, as excavation shall include removal of all materials other than 'water' and 'rock'.

2. "Rock" - is defined as a boulder of 1 cubic yard or more in volume (1/2 cubic yard for a boulder in trenches), and rock in definite ledge formation and masonry structures of one cubic yard or more in volume, the removal of which requires the use of mechanical equipment or the use of explosives. Rock removed by scarification or ripping method is considered as a separate classification under paragraph 4, subparagraph 4.1.1.
3. "Original Grade" - is defined as being the grade which exists at the time of Contract Award.
4. "Rough Grade"- is defined as being the completed surface of required excavations greater than 13' in width.
5. "Mass" - excavation is to be considered as an open area whose minimum horizontal dimension exceeds 13'.
6. "Trench" - is defined as excavation is defined as the removal of material from areas 13 feet or less in its minimal horizontal dimensions and below the elevation of rough grade or original grade, whichever is lower.

D. Procedures:

1. Rock Excavation In Trenches: Basis For Horizontal Measurement:
 - 1.1 Horizontal Measurements: Will be taken between the vertical planes as defined below.
 - 1.2 The Minimum Width Of Trenches In Rock: Will be taken as 3'-0".
 - 1.3 Excavation - For Walls Or Piers With Footings: The measurements will be taken parallel to and one foot outside of the edges of the concrete footings as called for in the plans (i.e. for 4'-0" footing, rock will be taken as 6'-0" in width).
 - 1.4 Excavation For Walls Or Piers Without Footings: The limits of the excavation will be 1'-6" outside of the line of concrete at bottom as shown or called for in the plans (i.e. for a wall with a bottom thickness of 1'-0", the width of the trench will be considered to be 4'-0"). (Caissons are excluded from these measurements).
 - 1.5 Excavation For Pipe Lines: Will be measured at 2' 0" more than the nominal inside diameter of the pipe but in no case less than 3'-0" wide.
 - 1.6 Excavation For Tanks, Vaults, Manholes, Pits, Etc.: Will be measured as 2'-0" greater in both length and width or diameter than the actual exterior dimensions of the structures and this excavation is considered to be trench only if any measured horizontal dimensions is 13' or less.
 - 1.7 No allowance will be made for rock removed beyond the above limits.
2. Rock Excavation In Trenches - Basis for Vertical Measurement:
 - 2.1 To determine depth of trench, vertical measurements will be taken from original grade or rough grade, (whichever is applicable), to the bottom of required excavation. These measurements will define the maximum depths for payments.
 - 2.2 To determine quantity of rock in trench, vertical measurements will be taken from the top of rock as encountered in the trench to 12" below the bottom of required rock excavation. Any over excavation below the required elevation shall be filled with concrete or other material as specified at no cost to the Owner.
 - 2.3 *No allowance will be made for rock removed beyond the above limits.*

3. Earth Excavation In Trenches - Basis Of Measurement: (Horizontal & Vertical): The basis of measurements and allowance limit for earth excavation in trenches is identical to that indicated for rock excavation in trenches, except that there will be no allowance for 12" below the required elevation. In addition the following will prevail:

3.1 Maximum allowable widths for earth excavation in trenches without shoring:

Trench Classification	Depth	Add To Nominal ID Of Pipe Or To Footing Width
	0 ft. - 6 ft.	3 ft.
Over	6 ft. - 10 ft.	5 ft.
Over	10 ft. - 15 ft.	7 ft.
Below 15 ft. deep the width of the trench shall be based on the individual case. The final depth of trench will determine the actual width for payment.		

- 3.2 If shoring is required the measurement shall be taken between the exterior walls of the shoring not to exceed 4' plus the I.D. of the pipe (for all depths).
- 3.3 To determine quantity of earth in trench, vertical measurements will be taken from the original or rough grade to actual bottom of earth excavation required.
- 3.4 Unit Prices - Earth and Rock Excavation (Basis For Payment): Prices include backfill with excavated material if it is suitable. Prices also include all excavation and disposal of all surplus or unsuitable material. Where replacement with the excavated material is prohibited or a particular backfill material is specified, the cost of the delivered replacement material in a volume equal to the above excavation pay limits minus the volume of the items installed in the trench shall be paid for a prior negotiated price. Prices do not include costs of shoring and de-watering but do include sloping for sides of excavation. Payment and credit amounts shall be determined in the following manner: Widths and depths of trench excavation as indicated. The total quantity of earth or rock excavation encountered in each depth payment category shall be paid for at its respective unit price as shown below. For example, in a 15' trench the first 6' will be paid for at the 0' - 6' price; the next 4' will be paid for at the over 6' - 10' price and the next 5' will be paid for at the over 10' - 15' price. Thus three different price brackets will prevail.

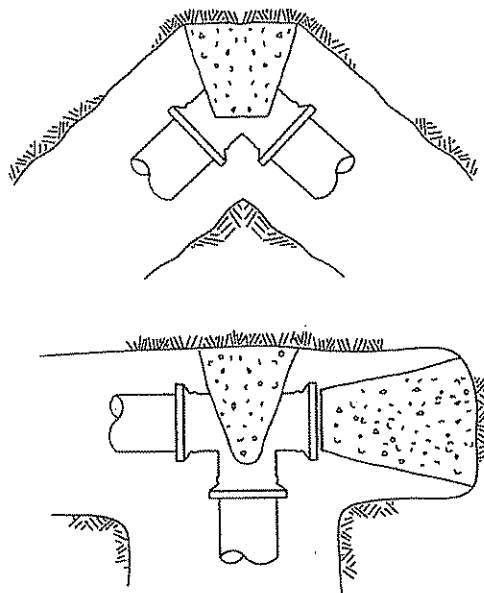
4. Unit Price Chart - Earth and Rock Excavation:

4.1	Earth Excavation - Hand		Unit	\$ Add	\$ Deduct
4.1.1	In Trenches - 0' - 6'		C.Y.	36.00	28.80
4.1.2	In Trenches Below 6' Deep		Prices Must Be Negotiated Before Work Is Started.		
4.2	Earth Excavation - Machine		Unit	\$ Add	\$ Deduct
4.2.1	Open Area	All Depths	C.Y.	18.81	15.05
4.2.2	In trenches	0' - 4' deep	C.Y.	14.27	11.40
	Over	0' - 10' deep	C.Y.	19.71	15.75
	Over	0' - 15' deep	C.Y.	35.00	28.00
	Over	0 - 20' deep	C.Y.	75.00	60.00
4.3	Rock Excavation		Unit	\$ Add	\$ Deduct
4.3.1	Open Areas, Rock Removed By Ripping (Any Amount), Net Rock -				
	Net Rock -		C.Y.	103.50	82.80
4.3.2	Open Areas, With Explosives -				
	Net Rock -	Total Quantity Up To 100	C.Y.	126.00	100.80
	Net Rock -	Total Quantity Up To 1,000	C.Y.	60.00	48.00
	Net Rock -	Total Quantity Up To 1,000 or more	C.Y.	28.00	22.40
4.3.3	In Trenches, Boulders, Remove By Machine		C.Y.	45.00	36.00
4.3.4	In Trenches, Ripping Of Rock By Machine-		C.Y.	105.00	84.00
4.3.5	In trenches, with explosives				
	Net Rock	0' - 4' Deep	C.Y.	95.60	76.50
4.3.6	In trenches, with explosives-				
	Net Rock-	0' - 10' Deep	C.Y.	125.00	100.00
4.3.7	In trenches, with explosives-				
	Net Rock-	0' - 15' Deep	C.Y.	150.00	120.00
4.3.8	In trenches, with explosives				
	Net Rock-	Over 15' - 10' Deep	C.Y.	200.00	160.00
4.3.9	In trenches, with explosives -				
	Net Rock-	0' - 20' Deep	Prices Must Be Negotiated Before Start Of Work.		
4.3.10	Jack Holes (For Hydraulic Lift/Elevators)		L.F.	95.00	76.00
4.3.11	Open Or Mass Areas - If Explosives Are Prohibited Net Rock		C.Y.	125.00	100.00
4.3.12	Trench Excavation - If Explosives Are Prohibited				
	Net Rock/With Rock Splitters And Jack Hammer or Hoe Ram		C.Y.	150.00	120.00

All questions must be in writing (not phone or e-mail) and must be forwarded to the consulting Architect/Engineer Joe Gargiulo Fax 860-632-1768 with copies sent to the DCS Project Manager, Natalina Raimondi Fax 860-713-7261.

End of Addendum Number One

Gail Blythe
Associate Fiscal Administrative Officer
Department of Construction Services



AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS

PIPE SIZE INCHES	1/4 BEND SQ. FT.	1/8 BEND SQ. FT.	TEES, PLUGS, CAPS SQUARE FEET
4	2	2	2
6	5	3	4
8	8	5	6

AREAS IN TABLE HAVE BEEN DERIVED USING A WATER PRESSURE OF 225 POUNDS PER SQUARE INCH AND A SOIL RESISTANCE OF 2000 POUNDS PER SQUARE FOOT.

MULTIPLY BEARING AREAS FOR DIFFERANT SOILS BY FOLLOWING FACTORS:

SAND AND GRAVEL CEMENTED WITH CLAY	1
SAND AND GRAVEL	1.33
SAND	2
SOFT CLAY	4
SHALE	0.4

NOTE: PROVIDE THRUST BLOCKS AT ALL PIPE TURNS AND PIPE FITTINGS OF NEW UNDERGROUND FIRE SERVICES AND FIRE MAINS.

5

TYPICAL THRUST BLOCK DETAIL

N.T.S.



PROJECT TITLE:

**OLIVER WOLCOTT
TECHNICAL HIGH
SCHOOL,
TORRINGTON CT.**

DRAWING TITLE:

**FIRE PROTECTION
DETAIL**

DWG. NO:

SKFP-1

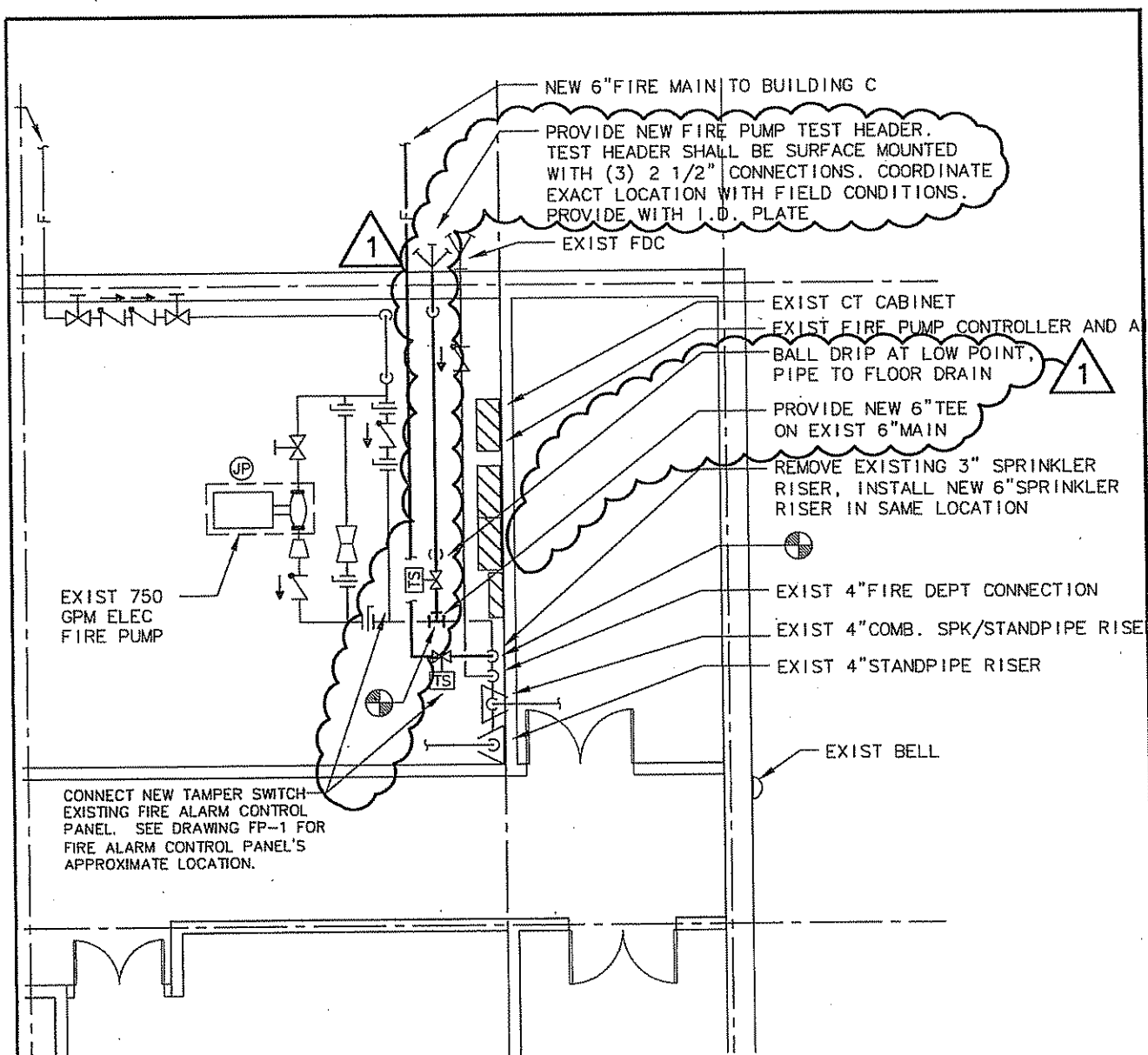
REVISIONS TO: FP-1

REMARKS: ADDENDUM #1


DATE: 11/7/11

PROJECT NO: 29165.00

SCALE:
AS NOTED



2 PARTIAL BASEMENT AREA B FIRE PROTECTION PLAN
 SCALE: 1/8"=1'0"

 <p>811 Middle Street Middletown, CT 06457 Tel. (860) 632-1682 Fax. (860) 632-1768 CES #29170.00</p>	<p>PROJECT TITLE:</p> <p>OLIVER WOLCOTT TECHNICAL HIGH SCHOOL, TORRINGTON CT.</p>	<p>DRAWING TITLE:</p> <p>FIRE PROTECTION PARTAIL PLAN</p>	<p>DWG. NO:</p> <p>SKFP-2</p>
	<p>REVISIONS TO: FP-4</p> <p>REMARKS: ADDENDUM #1</p>	<p>DATE: 11/7/11</p> <p>PROJECT NO: 29165.00</p>	<p>SCALE: AS NOTED</p>

TANK - SEE DWG NW

510 GAL FUEL OIL
TANK - SEE DWG P-3

6" XHCI STORM
INV. ELEV. 64

ADDENDUM #1
FOR INFORMATION ONLY
PLAN DATE: 8-1-1979

WING "C"
EE EL. 64872

Bldg G

INV. ELEV. 642.0'

6" XHCI STORM
INV. ELEV. 643

510 GAL WASTE
OIL TANK - SEE DWG P-3

7450 CU FT OF 1000 BTU/CU FT
GAS REQUIRED.

PTH OF BURY FOR GAS
1" FOR WATER 4" G

5" XHCI SAN, 8" CW. & 2 1/2"
GAS.

INV. ELEV. 639.0'

CONNECT TO EXIST. SERVICES
SEE DWG P-3.

Bldg C

Exhibit A

BLDG. C.

ADDENDUM #1
FOR INFORMATION ONLY
PLANS DATED: 12-30-1997

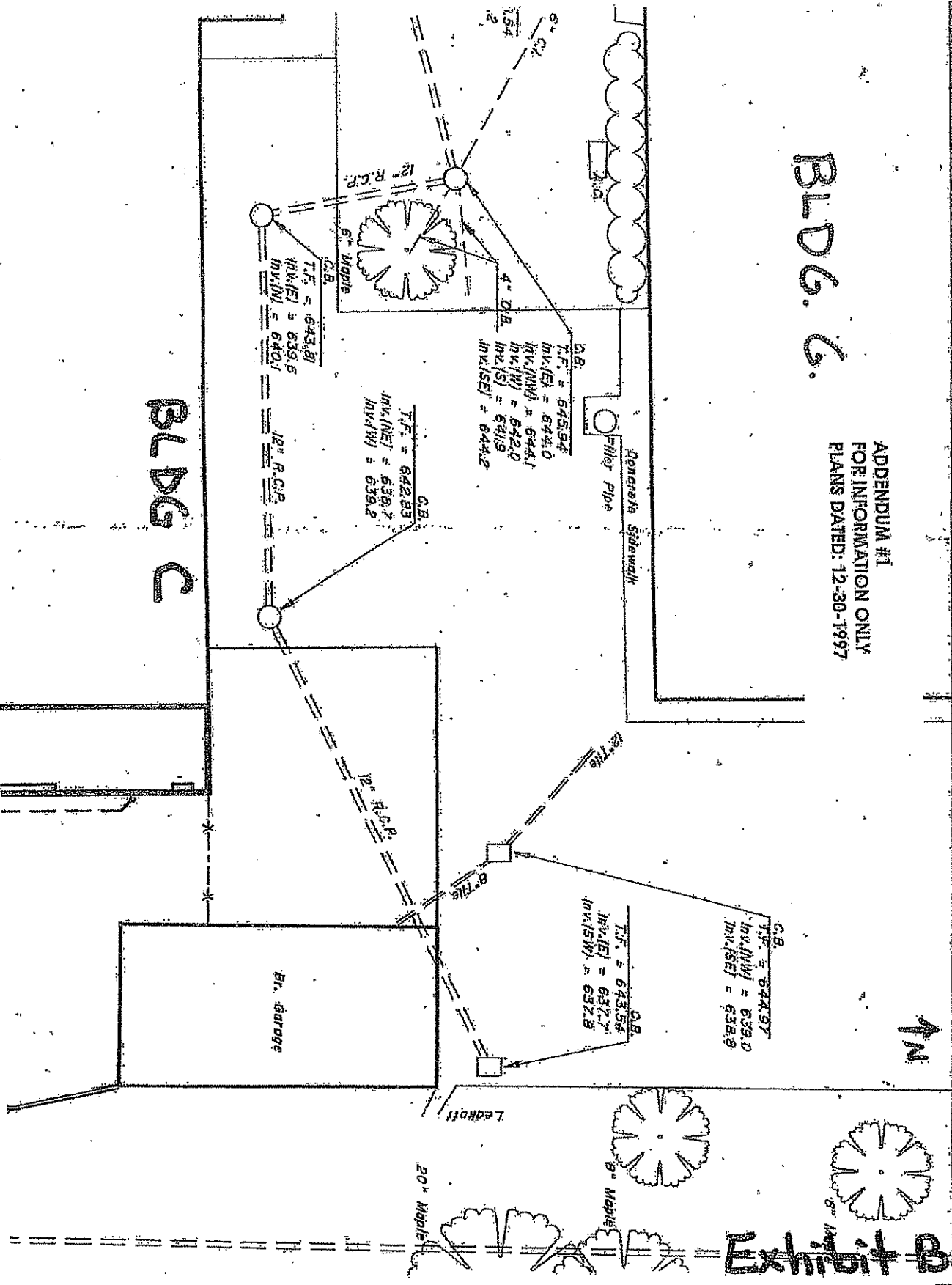


Exhibit B

INV. 7.22.12
ADDENDUM #1
FOR INFORMATION ONLY
PLANS DATED: 12-30-1997

TYPE 'C' C.B.
T.F. = 642.73
INV. = 638.40

33 L.F. 6" P.V.C.

BLDG C

133 L.F.-8" P.V.C.

S=1.00%

Blaze Door

110 L.F.-12" R.C.P.

S=4%

Concrete Sidewalk

6" 22 1/2" M.J. BEND
8" 1 1/4" M.J. BEND
ONQ. THRUST BLOCKS
HVAC

REFER TO P4
FOR CONTINUATION

INV. EL. = 638.14
REFER TO P4

-6" P.V.C.
S=1% MIN.
= 630.76

7 L.F. 6" X.H.C.I. PIPE
SDR 35, S=1% MIN.
S=1%

L.F. 10" X.H.C.I. PIPE
FER TO P4
5 L.F. 4" P.V.C. T.F. = 637.15
REFER TO S2
55 L.F.-12" R.C.P.

TRENCH DRAIN
INV. = 636.15

REFER TO P2
FOR CONTINUATION

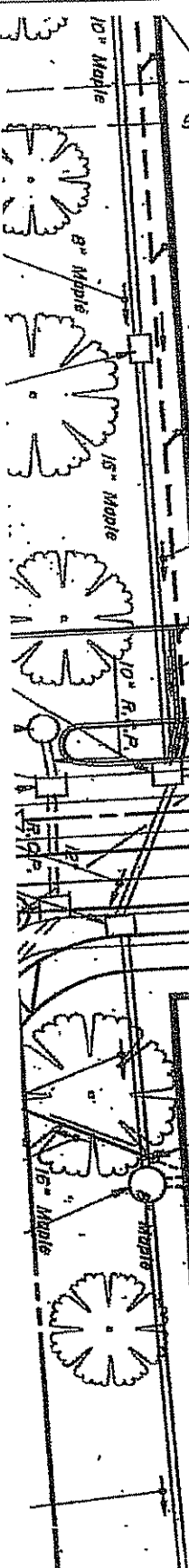
ADDITION "A"

VENT PIPE - REFER TO ALL
FOR CONTINUATION

74 L.F.-6" P.V.C.
SDR 35, S=1% MIN.

INV. = 634.10
REFER TO P2
INV. = 631.32
REFER TO P2
5 L.F. 15" X.H.C.I. PIPE
S=2%

FLEXIBLE
COUPLING



INV. E
R5
Exhibit C

TRANSFORMER
(REFER TO SUE2)

GENERATOR
(REFER TO SUE2)

GAS LINE
(BY UTILITY CO.)

Oil Tank M.H.'s

B.C.L.G.

144 L.F.-8" P.V.C.
S=1.00%

B.C.L.G.

Bituminous Concrete

Filler Pipe

8"x6" TEE
W/ CONC.
THRUST BLOCK
8"x6" REDUCER

98 L.F.
8" D.I.P.

6" GATE
VALVE W/ BOX

30 L.F. 6" D.I.P. Pole
FIRE LINE

65 L.F. 6" P.V.C.
S=1.00%

120 L.F. 8" P.V.C.

BLDG B

Concrete Sidewalk

6" 22 1/2" M.J. BEND

16" 11 1/4" M.J. BEND

195 L.F.
8" D.I.P.

TYPE 'C' C.B.

T.F. = 642.9
INV. = 638.54

14 L.F.-12" R.C.P.
S=1%

8" 45° M.J. BEND
8" 11 1/4" M.J. BEND
W/ CONC. THRUST BLOCKS

SAN. M.H.

T.F. = 643.4
INV. = 638.00
633.13

TYPE 'C' C.B.

T.F. = 642.73
INV. = 638.40

33 L.F. 6" P.V.C.

133 L.F.-8" P.V.C.
S=1.00%

110 L.F.-12" R.C.P.

Blind Door

ADDENDUM #1
FOR INFORMATION ONLY
PLANS DATED: 12-30-1997

Existing Building

BLDG. C

INV. E
RE

Exhibit D